appear in the edition of a book revised in 1960. For example, capacitors are called condensers and lines of flux called lines of force; the c.g.s. system of units is used throughout the book, which is a pity from the engineer's viewpoint.

Each chapter of the book is followed by a series of examples. An outstanding feature of the book is that the author has included, as well as answers, hints for solving the problems, which prove to be exceedingly helpful though not defeating the object of the exercise.

The other outstanding features of the book are undoubtedly the clear diagrams, the clear and easy to read print and the quality of the paper upon which it is printed. Overall the book would be a valuable asset to first year physics students. M.J.H.

Physics for Students of Science and Engineering. By D. Halliday and R. Resnick.
(John Wiley & Sons, Vol. 1 48s.. Pp. 594; Vol. II, 48s. Pp. 498; or as a combined volume, 84s. Pp. 1074)

As the title suggests this text book in physics is intended for science students whose primary subject is not physics. The authors have therefore concentrated on basic physical principles and techniques, illustrating these by their application to the most modern branches of physics. The inclusion of much of the material of contemporary physics has resulted in the omission of many traditional subjects such as calorimetry, photometry, surface tension, a.c. circuits and the like. Another departure from tradition for physics textbooks is the use of M.K.S. units throughout (even for quantum physics) and the use of E.P.S. where these are normally used in engineering practice.

From the electriacl engineer's point of view the development of electricity and magnetism in terms of *E* and *B* alone might add to his confusion over the role of *D* and *H*. The vector notation is used throughout the book but the refinements of vector field theory are not included.

This book covers all the physics needed for most engineering degree courses and the "Engineering Physics" subjects in the H.N.C. course. There is a wealth of extremely fine diagrams to help the student, many fine worked examples to guide him and a good selection of "Questions" and "Problems" to exercise him. If the student finds the standard textbooks rather too formidable in appearance this book is well worth the extra cost; it makes the subject a pleasure to study.

The book is available in two parts, part I dealing with mechanics, wave motion and heat, and part II dealing with electromagnetism, optics and quantum physics; it is also available as a combined volume as indicated above. J.G.

Michael Faraday: A List of his Lectures and published Writings. By Alan E. Jeffreys.
(Chapman & Hall. 42s. Pp. 86)

The author of this volume, a chartered Librarian, became interested in Michael Faraday while working in the Library of the Royal Institution, an establishment which was Faraday's home for so many years.

In this volume he has listed, in strict chronological order, all articles and published works, even letters to *The Times*, all lectures, whether published or not, and any reprints or later republications of any of Faraday's writings. Glancing through its pages, one cannot fail to be impressed by the breadth of interest displayed by Faraday. As electrical students we may tend to forget that Faraday's advice was sought as an expert chemist, that he was scientific adviser to Trinity House, and that he preached a number of sermons.

For the student of scientific history this volume will be a necessary work of reference and it can be recommended to all students of electrical engineering who have an interest in the history of their subject. E.M.H.

Basic Technical Electricity. (3rd Edition.) By H. Cotton, M.B.E., D.Sc., M.I.E.E.
(Cleaver-Hume. 12s. 6d. Pp. 246)

This book is a 3rd edition revised to employ the m.k s. system of units. It is, on first examination, clearly printed with simple and legible diagrams.

The introductory chapters deal with the nature of electricity and its various chemical effects. The author then goes on to consider work, power and energy, with a chapter on units. The final chapters deal with magnetism, electromagnetism, the magnetization of iron, induction and finally static electricity. There is a profusion of worked examples and a section of test questions with answers.

The book, in short, covers all basic theory required and might be a help to students in their first year. However, in the reviewer's opinion it is more suitable for the interested layman rather than the student, since the majority of students will already have covered the subject matter before coming to University. R.R.H.

Direct Current Electricity: Franklinian Approach. By Alexander Efron.
(Chapman & Hall. 18s. Pp. 90)

The book is apparently intended to follow "Magnetic & Electrical Fundamentals" by the same author and in the same "Basic Science" series. This reinforces the first impression that the price is very high. Diagrams, printing and paper are all excellent, but the covers are soft. Each chapter includes a set of questions and problems, although no answers are given for the numerical ones. Many of the questions require the student to write a short essay in order to demonstrate that he has grasped the meaning of the text and has reflected upon it. This is excellent practice and should be more common in books written in Britain.

The first chapter is long and is on electrochemistry. In my opinion this chapter suffers because it does not contain even an outline of